

We claim:

1.     A spring clip connector assembly comprising:
- 5             a base product with an opening, and
- a spring clip connector including a housing having a front wall with an opening for receiving a wire therethrough, a movable tab located in the housing, and a conductor secured to the housing and having a contact positioned to engage a wire
- 10     inserted through the opening in the front wall, and a spring between the housing and the tab,
- wherein one of the base product and the housing includes a resilient member and the other of the base product and the housing includes a mounting surface, the resilient
- 15     member movable between a first position that permits insertion of the housing through the opening of the faceplate and a second position that engages the at least one mounting surface and blocks removal of the housing from the opening of the faceplate, and
- 20             wherein the tab is movable between a closed position such that a portion of the tab is adjacent to the contact to secure a wire inserted through the opening in the front wall against the contact and an open position such that the portion is farther away from the contact than in the closed position to
- 25     release the wire, the spring biasing the tab toward the closed position.

2.     The connector assembly according to claim 1 wherein the base product is a faceplate.

3.     The connector assembly according to claim 1 wherein the base product has a plurality of openings.

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4.    The connector assembly according to claim 1 wherein  
the base product has a top mounting surface and a bottom  
5 mounting surface.

5.    The connector according to claim 1 wherein the latch  
is a cantilever latch.

10     6.    The connector according to claim 1 wherein the front  
wall has a circular opening.

7.    The connector according to claim 1 wherein the front  
wall has a centrally-disposed opening.

15     8.    The connector according to claim 1 wherein the front  
wall has a circular centrally-disposed opening.

9.    The connector according to claim 1 wherein the contact  
20 is adjacent to the opening in the front wall.

10.   The connector according to claim 1 wherein the contact  
partially blocks the opening in the front wall.

25     11.   The connector according to claim 1 wherein the housing  
has a single opening.

12.   The connector assembly according to claim 1 wherein  
the connector forms a snap-lock connection with the faceplate.

30     13.   The connector assembly according to claim 1 wherein  
the front wall has two openings.

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14. The connector assembly according to claim 1 wherein the housing includes a resilient member.

5     15. The connector assembly according to claim 1 wherein the base product includes at least one mounting surface.

10    16. The connector assembly according to claim 1 wherein a portion of the tab partially blocks the opening in the front wall.

17. A spring clip connector assembly comprising:  
a base product having at least two openings,  
15     a first spring clip connector located in a first of the at least two openings in the base product, the spring clip connector comprising

a housing having a front wall with an opening for receiving a wire therethrough, a movable tab located in the  
20    housing, and a conductor secured to the housing and having a contact positioned to engage a wire inserted through the opening in the front wall, and a spring between the housing and the tab,

wherein one of the base product and the housing includes a resilient member and the other of the base product  
25    and the housing includes a mounting surface, the resilient member movable between a first position that permits insertion of the housing through the opening of the faceplate and a second position that engages the at least one mounting surface and blocks removal of the housing from the opening of the faceplate,  
30    and

wherein the tab is movable between a closed position such that a portion of the tab is adjacent to the contact to secure a wire inserted through the opening in the front wall against the contact and an open position such that the portion

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is farther away from the contact than in the closed position to  
release the wire, the spring biasing the tab toward the closed  
5     position and

        a second spring clip connector located in a second of  
the at least two openings in the base product comprising

        a housing having a front wall with an opening for  
receiving a wire therethrough, a movable tab located in the  
10     housing, and a conductor secured to the housing and having a  
contact positioned to engage a wire inserted through the opening  
in the front wall, and a spring between the housing and the tab,

        wherein one of the base product and the housing  
includes a resilient member and the other of the base product  
15     and the housing includes a mounting surface, the resilient  
member movable between a first position that permits insertion  
of the housing through the opening of the faceplate and a second  
position that engages the at least one mounting surface and  
blocks removal of the housing from the opening of the faceplate,  
20     and

        wherein the tab is movable between a closed position  
such that a portion of the tab is adjacent to the contact to  
secure a wire inserted through the opening in the front wall  
against the contact and an open position such that the portion  
25     is farther away from the contact than in the closed position to  
release the wire, the spring biasing the tab toward the closed  
position.

18. A method for securing a spring clip connector to a  
30     faceplate having at least one opening, a bottom mounting  
structure and a top mounting surface, the spring clip comprising

        a housing having first and second side walls that are  
parallel and spaced apart and a front wall between the first and

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second side walls, the front wall having a single opening for receiving a wire therethrough,

5           a bottom wall and a top wall that are spaced apart  
          a cantilever latch attached to the top wall including at least one ramp piece having a vertical bearing surface that secures the connector to a faceplate,

          at least one ramp piece attached to the bottom wall  
10 having a vertical bearing surface that secures the connector to the faceplate

          a conductor secured to the housing and having a leading edge adjacent to the opening in the front wall,

          a tab movably coupled to the housing having a closed  
15 position wherein a ledge of the tab is adjacent to the leading edge of the conductor and having an open position wherein the ledge is farther away from the leading edge of the conductor than in the closed position, and

          a spring between the housing and the tab that biases  
20 the tab toward the closed position, the method comprising:

          angling the connector into the opening of the faceplate so that the at least one ramp piece attached to the bottom wall slides over the bottom mounting structure,

          rotating the connector so that that top mounting  
25 surface deflects the cantilever latch, allowing the at least one ramp piece attached to the cantilever latch to slide under the top mounting surface and engage the vertical bearing surface.

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